

**Remarks**

Claims 24-49 stand rejected. Claims 24, 30, 38-43 have been amended. Claims 31-37 and 44-49 have been cancelled. Claims 50-56 have been added. Claims 24-30, 38-43 and 50-56 remain pending in the application. Applicant requests consideration.

Claims 24-28, 30-35, 37-40, 42, 43, and 45-48 stand rejected as anticipated by U.S. Patent No. 5,188,179 to Tarr et al.

Claim 24 has been amended and as amended recites a method of scheduling a hard copy output engine event that includes providing a hard copy output engine comprising a sensor, a processor and a memory. This claim further recites the hard copy output engine, sensing status information, processing the status information, composing an electronic message, and transmitting the electronic message from the hard copy output engine to a scheduling engine. As amended claim 24 is patentable for at least the reason that it recites a hard copy output engine that senses status information, processes the status information, composing an electronic message, and transmitting that electronic message from the hardcopy output engine to a scheduling engine.

In order to anticipate, the cited reference must teach every element of the claimed invention. MPEP §2131, 8<sup>th</sup> Ed. Furthermore, for a prima facie case of obviousness to be established MPEP §706.02(j) requires that the cited references teach or suggest all the limitations of the claimed invention.

The Tarr et al. reference teaches a photocopy monitoring system that has a paper processing device that includes an internal paper counter. (Column 3, lines 50-65) The Tarr et al. reference describes use of a count detector to receive a count signal each time a piece of paper has been processed by the paper processing device. The Tarr et al. reference goes as far as to give an example of a specific photocopying machine (EP470Z manufactured by Minolta Camera Co., Ltd.) that has an internal mechanical counter 12 with two input terminals connected to the internal circuitry of the photocopy machine. (Column 4, lines 5-10) The Tarr et al. reference goes on to teach that when a piece of paper is processed by the paper processing device a signal on the terminal, drops to substantially 0 providing an interrupt signal. (Column 4, lines 25-30) Accordingly, all data interpolated by Tarr et al. begins and ends with a paper count, no sensing is performed.

For example, the Tarr et al. reference describes the use of only the paper count to facilitate an automatic billing system. (Column 5, lines 15-20) By correlating

the number of pages the copier processes to the amount of consumable goods used, the Tarr et al. reference teaches the calculation of a monthly total of consumer goods used. (Column 5, lines 60-65) Furthermore, based only on the counting of pages, the Tarr et al. reference teaches that an operator would be notified when preventive maintenance is required or when a calendar of such service contract termination occurs. (Column 6, lines 20-24) The Tarr et al. reference does not teach the notification of the operator from the hard copy device. Instead, the Tarr et al. reference only teaches notification from an external CPU that has interpreted the paper count. The Tarr et al. reference describes several different uses of the paper count from photocopy machines, but all uses hinge on the paper count.

Furthermore, the Tarr et al. reference only describes the transmission of messages, not from the copier or printer, but from an external computer only after the external computer has interpolated the data.

In sum, most reasonably interpreted, the Tarr et al. reference teaches the external counting of pages processed by a photocopier or printer and the use of these count numbers by an external computer to interpret when the photocopier or printer needs maintenance or additional consumable support.

With regard to Ohtani, apparently the Examiner has only cited Ohtani for the teaching of an electronic message including a consumable order. Ohtani does not teach or suggest a hard copy device that senses, processes and transmits electronic messages.

Therefore, interpreted most reasonable, the cited references, either alone or in combination, cannot be construed to teach or suggest sensing status information of a hard copy output engine, processing that status information, composing an electronic message including the status information and transmitting the electronic message from the hard copy output engine to a scheduling engine. Therefore, claim 24 is allowable for at least the reason that it recites sensing the status information, processing the status information, composing an electronic message, and transmitting the electronic message from the hard copy output engine. This limitation is neither taught nor suggested by the cited references. Applicant requests allowance of claim 24 in the Examiner's next action.

Claims 25-30 all depend from claim 24 and therefore are allowable for at least the reasons discussed above regarding claim 24.

Regarding the rejection of claims 31-37, claims 31-37 have been cancelled and are presently not pending in the application.

Claim 38 has been amended and as amended recites a computer implemented hard copy output engine control system that includes a plurality of sensors coupled to the hard copy output engine and a processing circuitry coupled to the sensors. Claim 38 further recites that the processing circuitry is configured to read the sensors and detect the status of the aspects of the hard copy engine, look up from a memory contact information, compose an electronic message, and transmit the electronic message from the hard copy output engine to a scheduling engine. Claim 38 is allowable for at least the reason that it recites reading sensors.

As discussed above, the cited references only teach the monitoring of page counts from copier/printers. The cited references do not teach or suggest the limitations of claim 38. Therefore, claim 38 is allowable.

As claims 39-43 all depend from claim 38, they are therefore allowable for at least the reasons discussed above regarding claim 38.

Claims 29, 36, and 41 stand rejected as obvious over Tarr et al. in view of U.S. Patent No. 6,108,099 to Ohtani.

Claim 29 is allowable for reasons set forth above with regard to claim 24, from which claim 29 depends. More particularly, The Tarr et al. reference fails to teach or suggest sensing as recited in claim 29. The Tarr et al. reference further does not teach the notification of the operator from the hard copy device. The Ohtani reference fails to cure the deficiency of Tarr et al. Claim 36 has been cancelled. Claim 41 is allowable for reasons set forth above with regard to claim 38, from which claim 41 depends.

Claims 44-49 stand rejected as obvious over Tarr et al. in view of Ohtani and various references. Claims 44-49 have been cancelled and are presently not pending in the application.


New claim 51 has been added and recites, in pertinent part, a hard copy output engine that comprises a sensor configured to sense if toner level falls below a predetermined threshold, a processor coupled to the sensor, and a memory coupled to the processor. Claim 51 further recites the processor being configured to determine toner level, to look up from memory contact information, and further configured to compose an electronic message from the hard copy output engine to the notification recipient. As discussed above, the cited references do not teach or suggest this processing prior to composing an electronic message to a notification recipient. Therefore, claim 51 is allowable. Action towards the allowance of claim 51 is earnestly solicited.

Claims 51-56 all depend from claim 51 and therefore are allowable for at least the reasons discussed above regarding claim 51.

Having addressed all of the issues raised by the Examiner in the last action and having proffered the patentability of new claims, this application is believed to be in immediate condition for allowance, and action to that end is requested.

Respectfully submitted,  
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